

HIGHER EDUCATION OF MEDICAL MEN

AND ITS

INFLUENCE ON THE PROFESSION AND THE PUBLIC.

BEING THE ADDRESS DELIVERED BEFORE THE AMERICAN
ACADEMY OF MEDICINE, AT ITS FIFTH ANNUAL
MEETING, HELD AT PROVIDENCE, R. I.,
SEPTEMBER 28, 1880.

BY

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Being the address delivered before the American Academy of Medicine, at its fifth annual meeting held at Providence, R. I., September 28th, 1880.

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President of the Academy, etc.

FELLOWS OF THE AMERICAN ACADEMY OF MEDICINE:—May we not hope that there was some inspiration in our choice of this good city as the seat of our fifth annual meeting, and that Providence may indeed aid us in our effort to advance the cause of Medical Science, and the good of mankind.

In attempting the discharge of one of the duties devolving on the President of the Academy, I invite your attention to the consideration of the Higher Education of Medical Men, and its Influence on the Profession and the Public.

"To the practitioner who has realized the defects of his education, and to the people who employ him, this subject has a vitality which is progressive, nor can even the oldest and most influential educators continue to ignore its significance." This is the opening sentence of a very pertinent editorial, (referring to medical education,) in the last (September) number of a very live Western journal. It is a subject, perhaps, inconveniently wide in its scope for this occasion, but the objects and motives, and the probable influence of our association in the future, are so little understood, that it has been thought advisable, by others besides myself, not only to address you, but also the profession at large, and indirectly, the public beyond. The interests, in fact, of our profession are so interwoven with those of the public that it would not be possible, even if desirable, to consider them separately. As civilization has advanced, this has become more and more apparent, and better and better appreciated by the general public; indeed it would not be difficult, at this day, to demonstrate that this advance has been largely due, and

that, in future, it will be still more largely due to the advance of medical science. To the thoughtful citizen, who keeps himself *au courant* with the daily history of progress especially in sociology and general science, the newspaper press, the reports of the State Boards of Health, of Commissioners of Education, of medical and other scientific associations, and the individual communications of medical men to the popular as well as the professional journals, it will not require demonstration. These all illustrate the untiring and unselfish efforts of our profession in the prevention of disease and immorality; efforts directly opposed to their pecuniary success, often involving considerable pecuniary sacrifice; efforts, however, whose fruition brings its own reward to their authors, and which are also beginning to be appreciated by the intelligent and thoughtful portion of the American public.

How do we stand to-day with regard to our relations with this public, especially with the cultivated classes? Have we that degree of the respect, the confidence, the veneration of these classes which was accorded to the medical men of past ages, and is now accorded to those of other countries? Do we occupy as favorable a position with regard to them as we did even in the early history of our country, when medicine was in its infancy compared with its development at this day? Are our relations with the press, the clergy, the law, the scientists, the literati, such as they should be? Such as the rapid and successful progress of our science in the last half century entitles it to be? Such as its undeniable influence on the welfare and happiness of the nation should claim for it? It is hard-

ly necessary to ask the question. We are all prepared to answer in the negative. Why is it so? The fault is not in our grand calling, nor in the deficiencies of our science, which lays under contribution, indeed comprehends all sciences, but in her votaries. With them, comparative ignorance instead of the varied learning which should be their characteristic, is too often the rule. We meet here to day to raise our voice against this monstrous evil of society, and to pledge again our individual and united efforts, in common with our brethren all over the nation, who are striving in one way or another, towards the same end, for abating it at the earliest possible moment.

If we would reform evils, we must thoroughly appreciate and boldly face them. More than one of my predecessors have described in greater or less detail, their nature and extent. The whole profession, through its various representative bodies, and its colleges, the very institutions which are perpetuating the abuses, have been crying out against them for nearly forty years; but still no remedy has been applied, none at least of a radical nature. It is not a pleasant duty to uncover the deficiencies, to expose the abuses of one's own profession; rather would we draw the veil of secrecy around them. The shafts of sarcasm and wit have, from time immemorial, been launched at us, and often unjustly: but we do not hesitate to arraign ourselves at the bar, when the interests of medicine, involving as they do, the interests of humanity, are imperilled.

In the first place then, it may be justly charged that our standard of medical education has retrograded from its earliest foundation in this country, to the present time. "The first medical school," says Dr. William Pepper,* "was founded in 1767," though it is stated by Dr. J. B. Beck,† that the State of New York is "entitled to the honor of adopting the first effectual measures for regulating the practice of medicine." This was in 1760, "when the General Assembly of the Province ordered that no person shall practice as physician or surgeon in the City of New York before he shall have been examined in

physic and surgery, and approved by one of His Majesty's Council, the judges of the Supreme Court, the mayor of the city, or by any three or more of them, taking to their assistance for such examination such proper person or persons as they in their discretion, shall think fit." A fine was attached to infraction of this law. In 1772 a similar law was passed in New Jersey. Those eminent men who formed the University of Pennsylvania boasted, and "it was" says Dr. Pepper, no "idle boast," "that their scheme of medical education was to have as extensive and liberal a plan as in the most respectable European Seminaries, and that the utmost provision was made for rendering a degree a real mark of Honor, the reward only of distinguished learning and abilities." This plan was, "that all such students, as have not taken a degree in any college, shall, before admission to a degree in Physic, satisfy the Trustees and Professors of the college concerning their knowledge of the Latin tongue, and in such branches of Mathematics, Natural and Experimental Philosophy as shall be judged requisite for a medical education." Two grades were established: M. B. and M. D. It was only after taking one degree, and having practised under it for three years, and having attained the age of twenty-four, that the final degree could be secured. Remember, in this connection, what medical science was then and is now. It is like the difference between the vision of the unassisted eye and that to which the telescope carries us. Many of the branches which now constitute special professorships were then comparatively unknown and practically untaught. Yet we see that a far longer period of study and a more mature age were considered necessary to master the science then than now; and, above all, a far higher grade of preliminary training and acquirement. Here then lies the evil, and here lies the remedy in a nutshell—preliminary education. But let us probe the disease still further before we seek to apply the remedy. In 1849, when I graduated in the Medical Department of the University of the City of New York, there were six professors, only three assistants, and only six branches taught, as in other similar institutions, and the term of study was about what

* Introductory address before the Med. Dept. of the Univ. of Penna.

† Address before the State Med. Soc. of New York.

It is now. It then required every moment of the industrious student's time to do justice to these branches, to dissect, and to attend the hospital clinique; and the facilities for neither were what they now are. There was no Microscopy to study, no Laryngology, no Electrology, no Dermatology, no special instruction in diseases of eye and ear, no laboratory work, no special instruction in the important class of nervous diseases, or insanity, or Medical Jurisprudence, or Hygiene, and the same was the case in other institutions. Now, each of these branches has an extensive literature of its own, and professorships or lectureships devoted specially to them. The area of study has, therefore, been more than doubled. What additional time has been added to the regular courses of our colleges to meet this additional requirement of study? Within a very recent period several colleges have adopted an additional session, and some have added one, two or three months to the session, but the large majority have made little or no addition which is obligatory. How is it possible, then, for the student to mentally digest all this new matter which is crowded upon him during the few months over which the regular course extends? For the small minority, who choose to avail themselves of the extra non-obligatory courses there may be some chance of acquiring a moderate acquaintance with most of the subjects; for the others it is a mere cramming; and we all know that knowledge thus acquired is but for a day, not for all time.

Has there been such an improvement in our *system* of teaching as to compensate for this lack of time? Evidently not. The only change from the old plan which might meet the increased demand is a careful grading of the classes. Yet, incredible as it may appear to one unacquainted with the facts, the student, with so brief a period at his disposal for the acquisition of so much knowledge, and of such a varied character, and generally with little previous training or habit of study to assist him, is required to listen to the same lectures, to see the same experiments, to observe the progress of diseases and their treatment with the most advanced pupils, and even with graduates, who have already attained some proficiency in the practice of medicine.

Within the past year or two there are some honorable exceptions among the colleges, but I am referring to the almost universal custom.

For some years after the establishment of medical teaching in this country there were but few schools, and the requirements for admission and graduation were kept up to a respectable standard. But, after independence was declared, and the individual States assumed control of education, nearly all government authority was withdrawn, and as charters for medical colleges were rarely, if ever, refused by legislatures,* they began to multiply until they increased from sixteen in 1834 to eighty at this time, if we include the Homœopathic and Eclectic colleges, which are legally on the same footing with our own, not to speak of the so-called bogus colleges, whose charters are a disgrace to the legislatures of some of our States and bring discredit on the whole country. For many years this increase has been in an accelerating ratio; for, according to Dr. Pepper's statistics (op cit), "the population between 1867 and 1876 increased less than 8,000,000, but no less than twenty-one new regular medical schools were established." That the number of these colleges is far beyond the wants of the country will be apparent from the statement that in fourteen other countries, including our neighbor Canada, the average is about one to every 2,250,000 of population, and there is no complaint in any of these countries of a want of doctors, except in France and a few remote districts in Ireland and Scotland.

As our colleges are, almost without exception, private institutions, conducted at the expense of the professors, and supported by the fees of the students, it follows that, to keep them going without too great a pecuniary sacrifice, students must be had at all hazards, and hence follows a rivalry or competition, not for turning out good physicians, but a good number; hence the impossibility of exacting such a grade of preliminary requirement for matriculation, or such a stand-

*The first law, however, which was passed after the War (in New York, 1792) recognized the importance of the collegiate degree, inasmuch as it required a student not possessing it to study an additional year. In 1818 the Legislature of New York again recognized the importance of classical studies. —[Davis on Medical Education.

ard of medical knowledge at graduation as their own sense of propriety and responsibility would prompt them to adopt; or, as Dr. Stille has more forcibly expressed it, "This it is which has destroyed the independence of the schools, and has compelled them to perpetuate a system of education which their judgment condemns and their conscience reprobates." "The great defect in Great Britain," says the author of the Carmichael Prize Essay for 1879, "of the present state of things is the admitted antagonism which exists between the duty and the interests of the corporations. And it is to deal with this fact, and for no other reason, that the whole medical system is to be revolutionized." The General Medical Council appears to be powerless, and generally allows the colleges to do as they please. The consequence of this irresponsible multiplication of schools is a corresponding multiplication of physicians; so that the proportion to population here is 1 to 600, according to Pepper's tables, against an average of 1 to 3,800 in 13 other countries in both hemispheres. The evils resulting, both directly and indirectly, from this excessive over production alone are of the most serious character, far-reaching in their influence, inimical if not destructive to that high social status of the profession as a body to which we are entitled by our constant devotion and liberal benefactions to the public interest, while it is equally opposed to the welfare of the individuals of that body. "A whole book," says a recent editorial in one of our best journals, "might be written upon the innumerable vicious results of the overproduction of medical men."

Grant for a moment that the hordes of physicians crowding every nook and corner of our immense territory are possessed of those mental and moral qualities which a liberal education commonly bestows, that they have acquired a fair theoretical and practical medical training besides the diploma, which of itself, unfortunately, carries no such assurance, what is to become of them? Statistics and careful investigation in different countries show that it requires a population of 2,500 to ensure a sufficient compensation to a physician. In this country it probably requires less. We will say 1,500. But there are only 600, and from this we

must deduct 200 (Prof. Hamilton allows 300) for charity practice and bad debts. To enable him, then, to live as a gentleman occupying such a position in society should live, he must engage in some other pursuit in addition to his practice. A few succeed in this; but it is at the expense of serious deterioration of medical skill and knowledge. A large majority struggle along, compelled by ruinous competition to accept such inadequate compensation that they are barely able to procure the necessities of life, and have no means to supply themselves with a tithe of the necessary periodical literature which tells of the daily progress of medical science. The natural outcome of this is a loss of professional interest, habits of careless observation and diagnosis, a gradual deterioration of that high principle of justice and honor in their social intercourse with each other with which they started out in life, and too often, in the scramble for the means of living or for family comforts, a degeneration into the contemptible practices which, we know, are tending to degrade the profession everywhere.

But we are all painfully conscious that I have granted too much; that but a very small proportion enter upon life with any such qualifications as have been described.* The examinations before our Army and Navy Boards during our civil war; the horrible mistakes, both in medical and surgical practice on the part of our regimental surgeons; the evidence of the professors themselves of our medical colleges, in their annual addresses; the reports of the committees of the American Medical Association, year after year; the lamentable instances of gross ignorance and incapacity adduced before this Academy by my predecessors, render it unnecessary for me, at this time, to recapitulate, or to adduce any special cases, which, unfortunately, are but too abundant.

*It is estimated that there are about 80,000 persons practising medicine in the United States, and that less than 5 per cent. of these have the degree of A. B., and that not more than 15 per cent. are capable of contributing to the literature of the profession. A distinguished physician of Pennsylvania, one of our fellows, says: "Leaving out Pittsburgh and Philadelphia, and their counties, there are not two A. B.'s in each county. There are only two A. B.'s in my county, with eighty practitioners."

Let me not be misunderstood, or quoted as depreciating the condition of *medical science* in the United States. This by no means corresponds with the *status* of the *medical profession*, paradoxical as the statement may appear. In spite of the obstacles just referred to, and others yet to be noticed, we are certainly not behind any country in the world as regards our achievements in practical medicine and surgery, and are beyond all in some of the branches of the latter—in the surgery of women, in the management of deformities and fractures for instance, to say nothing of the great discovery of *Anæsthesia*; while, at the same time, this skill is more widely disseminated in this country than in any other. Our medical literature is beginning to command the respect of the world, many of our systematic treatises having been translated into several foreign languages. In a late number of the *London Lancet*, the reviewer of a recent great work by American authors, "*Back's Hygiene and Public Health*," makes this criticism: "To say it is worthy the country of its origin is to say a great deal, but not more than is deserved." Nevertheless the number of such works is ridiculously small compared to the talent and rich experience possessed by such large numbers of our distinguished physicians and surgeons. From the defective nature of their preliminary education, the majority of these find it difficult, if not impossible, to write creditably. In the last number (August) of *Hays' Medical News and Abstract*, there are fifty-three selections from various writers, and not one among them from an American author. We may point with pride to our Great National Medical Museum, the wonder and admiration of the medical world, a monument to the genius and foresight of the Surgeon-General, who, in the midst of unaccustomed and most exacting labors in the medical organization of our heterogeneous army, with its crowds of ignorant surgeons and hospital stewards, seized the time and opportunity to initiate and carry on such a work as this, and thus to make the vast sacrifice of human life, incident to such a war, a blessing to future armies, and an invaluable inheritance to the descendants of those whose death or mutilation furnished the occasion and the materials for

this noble institution. The National Medical Library also has grown with the lightning-like rapidity characteristic of everything American, and the present librarian, a distinguished fellow of this Academy, to whose ability, perseverance and indefatigable labor it is mostly due, is now engaged on a work, which, to quote the words of the venerable Wendell Holmes, "will be to the nineteenth, all and more than all that the *Bibliothecæ, Anatomica, Chirurgica et Medicinæ Practicæ* were to the eighteenth century." All this is not inconsistent with what has been stated with regard to the ignorance of the mass of the profession. A profession will be judged, not by a few shining lights, but by the condition of the body. "Every ignorant man," says Dr. Geo. E. Paget,* "has an injurious influence on the estimation in which the entire body is held: His demerits have a tendency to lower us throughout the circle in which he is known. The want of confidence in him, and the want of respect for him, beget distrust and disrespect for the profession in general."

First then, let me ask, how are we to limit the number of physicians? One professor, in his annual address before the Council, has recently asked: "Why not follow the plan of the manufacturers, when the supply is largely in excess of the demand,—'shut down; stop the manufacture.'" This might indeed improve the prospects of existing practitioners, but we wish to infuse a different class of men, who will themselves gradually thin out the ranks of the grossly incompetent. Our course is plain enough—to make our system of instruction correspond, in some measure, to that which prevails in all other parts of the civilized world. We are all aware that nowhere is the door so widely open to entrance into the medical profession as here. Not only are the requirements for entrance into the medical colleges, and for the diploma, far higher in the old and principal governments of Europe, but in such countries also as Australia, Chili, Venezuela and Cuba. By such a course, we would diminish the quantity, and improve the quality. This practice of the colleges for fifty years, in first receiving students utterly unprepared

*Address before the British Medical Association, at Cambridge,

by previous education, to commence the study of medicine, and then crowding them through to their graduation in the brief period of two sessions, comprising each only about five months, sometimes less, has fostered the idea in the minds of these students, and of the cultivated classes of the public, that the study of medicine is comparatively a very simple affair, requiring very moderate mental capacity, and very little previous education, that a knowledge of the qualities of a few drugs, and of their effects on the system, the ability to "set" a broken limb, tie a bleeding artery, dextrously amputate, to be able to distinguish, under a microscope, a blood corpuscle from a urinary cast, and similar knowledge, are about the sum total of what is requisite for attaining the dignity of M. D. The ablest young men, accordingly, in most communities, betake themselves to law and politics or to mercantile pursuits, whose rank and file include a considerable number of our most highly educated gentlemen; sometimes to the ministry, which is known to require at least some classical knowledge, but whose reputation, like ours, is seriously impaired. The same obtains in England; Mr. Spencer Wells, in his address before the British Medical Association, says: "We should so order our schemes of education, whether conjoint or not, as to bring into the profession, as far as possible, young men who have the highest general culture to be obtained by an English education. Until this is secured, the flower of our University youth will still choose the Church or the Bar, the Army or the Navy, or some branch of the civil service of the State, where they at once take an enviable social position as members of an honorable profession." Those, in the United States, who feel it a disgrace to follow in the footsteps of their fathers, and to labor, or are too ignorant or too stupid to attempt law or theology, are apt to take up with medicine. Here in New England, where the best educational establishments are located, I am informed by one who has had the best opportunity for ascertaining the facts, that hardly one of the few who attain the highest rank in the classes, ever chooses the study of medicine, while the mass of those who fall by the way, and abandon their collegiate course, if they choose any profes-

sion, enter upon that of medicine. In England the same fact is observed, not two per cent. of the physicians there are graduates of the universities, and their social status is worse than ours. The idea generally entertained among the cultivated classes is that a comparatively low grade of learning is required for the study of medicine, or that high attainments will be wasted where their recipients are surrounded by, and likely to be outstripped, in the struggle for fame and fortune, by vastly inferior men, while, in the other professions the reverse usually obtains. This fact is also doubtless an incentive to young men possessing few or none of the necessary qualifications, to apply for admission into the profession. But a change is evidently taking place in this respect. The taste for, and the spread of scientific information among the intelligent and cultivated classes, even such as pertains more or less to medicine, especially to biological problems, to Hygiene and Preventive Medicine, as evidenced by the numerous editorials on medical topics in the daily and weekly press, the increasing demand for such journals as the *Popular Science Monthly*, the circulation of purely medical journals among the laity, all indicate that, in the near future, the ignorant physician will find it difficult to cloak his ignorance, and that the quack will be unmasked. Even now, the physician, who is not thoroughly posted on the discoveries and improvements daily heralded in medical periodical literature, will perhaps not unfrequently find that some of his patients are in advance of him. The time has passed when we could put off an intelligent querist with a shrug of the shoulder, or a wise look, a hard name, or a bit of scholastic lingo. Evidently the public are demanding of us better educated men. Appreciating as they do, more and more every day, the vast importance of medical sciences to their most vital interests, not only to the safety of life, but to the prosperity of business, and the value of investments, they cannot afford to remain indifferent to the condition of medical education: nor will they, when we show a united determination to lift it from the comparatively degraded condition which it occupies in the United States.

The time has come for action; not the dis-

connected and partial changes which some of the colleges, here and there, to their credit, however, be it said, are undertaking, but a concerted, simultaneous movement, which will elevate our institutions to somewhere near the level of those of the rest of the world. What shall this action be? That we may form a better idea of what may be necessary in order to avoid the failures which have attended previous attempts, let us briefly review them. One would suppose that the necessary reform could be effected by the appointment of a disinterested board of examiners composed of the best qualified men in the profession, who alone should have the power to authorize the granting of diplomas. But the few trials which have been made of this have not been encouraging. The State of New York has a Board of Censors, one from each congressional district, appointed by the Medical Society, who are authorized to grant licenses. This, I believe, worked well for a short time. But gradually abuses in the appointment of the members crept in, probably through the withering taint of politics, and it has become obsolete. Then a law was passed empowering the Censors of the Medical Society to call before them all practitioners, and to ascertain their qualifications. This would appear to be a certain method for getting rid of the quacks at least, as the law fixed a penalty for practicing without the license of the Censors. But it has been practically a dead letter. Now, a new law has been passed, which will probably meet with the same fate as the last. Then several of the colleges had boards of censors as examining boards, composed of eminent men who were not concerned directly with the teaching. But their examinations were a sham, and diplomas were as easily earned as in the other colleges. A National Association of Medical Colleges has been attempting to effect some reform, and have finally ventured to insist on a three years' course, but not until after 1882. But its success seems very problematical, since the small number of the great eastern colleges which had joined the association, have, for some unexplained reason, withdrawn. It is to be hoped that the southern and western colleges will not be discouraged by this defection. Reform in medical education was also one of the objects of the American Med-

ical Association, and committees on reform have been repeatedly appointed and discharged, and one president after another has given the best advice with so little result that the whole subject seems, of late, to have been given up in despair. In England, those who have been aiming at reform have met with similar difficulties, and two years subsequent to the founding of our Academy, have settled upon the plan which we had proposed. But they are confronted by difficulties which do not exist here, some of their institutions having vested rights, with which they are loath to part, and which Parliament seems to guard with jealous care. Although they have only nineteen licensing bodies in the United Kingdom, they have so far found it impossible to form a combination for what appears to be a *sine qua non*—uniformity in preliminary requirement.

Preliminary examination has been urged as affording the best means for excluding improper candidates. And some of our colleges have adopted it, but what does this examination amount to? As indicated in their annual announcements, it is less comprehensive than that required for entering the Freshman class of the most ordinary literary college; not only is Greek but even Latin entirely left out, or some modern language allowed as a substitute. But it is to be feared that the whole affair is a sham, for one of the most prominent colleges, in one of our large cities, after cutting it down *on paper* to very insignificant proportions, has never put it into execution, and, as I learn from good authority, does not propose to do so. A preliminary examination by the faculty of a college, especially by one which is not thoroughly endowed, is valueless. It should be by an independent board, and better by a board not consisting of *medical* men at all. This is Sir William Gull's idea expressed in 1877 before the Grand Medical Council of Great Britain. He said, moreover, "up to this time, I may say that the preliminary education examination has been good for nothing as a means of selecting men for entering the profession; or for rejecting those who have not sufficient intellectual training." In France they have no preliminary examination, but require the Baccalaureate degree only. As an instance of the futility of preliminary exami-

nations by the faculty of colleges, I may refer to a recent case which happened on the other side. "Recently" says Dr. Laffan,* "the Irish College of Surgeons rejected a candidate again and again for gross incompetency, and Trinity College which has always enjoyed an exceptionally high reputation for strictness, admitted him with flying colors." Nor is this an isolated case. It is noted that, in Great Britain, within a few years, examinations have become more strict, and the boast is that a large percentage have been rejected. But, according to the authority just quoted, it is also noted that but few of those rejected are obliged to abandon the profession. "They find at the last pinch, some portal large enough to admit them." Examination, indeed, as almost universally conducted, is a most imperfect test of knowledge. It can seldom discriminate between information *crammed* into the memory, and that which is assimilated and useful. It cannot tell whether it has been acquired in such a manner as to develop and strengthen the faculties of the mind, or whether, on the contrary, it has as often happens, weakened those faculties by overburthening them, and wearying the memory. In fact, examinations whether in our public or private schools, in our literary or medical colleges, are a mere deception and cloak to cover up deficiencies in teaching on the part of the instructors, and ignorance on the part of the pupils. In Germany, where the best system of education is supposed to exist, examinations are not relied on as a test, or as a correction of ignorance. We may be certain that these preliminary examinations, which are so exercising the minds of our college faculties, and are given such prominence in their announcements when once decided upon, will result in the usual failure. By what means can we ascertain whether, in all the colleges adopting them, they are faithfully conducted? The fatal competition for numbers, the bane of our system, will certainly prevent uniformity in this test.

In the face of all these failures, what additional means of reform have we to propose?

The objects of the Academy are thus briefly stated in the Constitution:

1st. To bring those who are alumni of classical, scientific and medical schools into closer relations with each other.

2d. To encourage young men to pursue regular courses of study in classical and scientific institutions before entering upon the study of medicine.

3d. To extend the bounds of medical science, to elevate the profession, to relieve human suffering, and to prevent disease.

By bringing together in one body, from all parts of our country, the most highly educated members of the profession, those who have received a classical and scientific training preliminary to their medical education, and enlisting their efforts, individually and collectively, each in his own sphere of influence, we may do much towards *encouraging* young men to pursue a regular course in a literary college before entering upon the study of medicine; and, for a time our action must be confined to this, but our endeavor must constantly be to shorten the period between this and the day when all respectable medical colleges shall not only encourage, but *compel*, the young men of our country, before entering their portals, to show that they have mastered such studies as can only, in this enlightened age, render them worthy of such admission. What test then shall we propose to the colleges? We have seen how difficult it is to enforce proper preliminary examinations, and how liable to failure the plan would be if adopted. We would propose, then, that no one should be allowed to matriculate as a medical student who has not acquired the degree of A. B. from a respectable college. There could be no evasion of this test on the part of any college; no such thing as one college taking advantage of another. A diploma representing a four years' course, and at least two years of preparatory study must be shown; and any attempt to evade this must be promptly detected, as the name of each matriculant would be followed in the catalogue by the degree, and the name of the college whence obtained. We cannot, if we would, force the colleges to adopt any test. They are, unfortunately, subject to no exterior control. They will do as they please, but we can set an example.

This proposition will perhaps strike those who have not given the subject mature con-

* Carmichael Prize Essay, 1879.

sideration, as Utopian, while others will have numerous objections to urge against it. Some of them we may anticipate. Some have already been privately advanced. In the first place, they point to those distinguished lights in the profession, in this and other countries, who have attained the enviable positions they occupy, unaided by classical or scientific training. But these are very exceptional cases, to be found in all professions and in all walks of life; men possessing those transcendent qualities of originality, energy and genius, which enable them to triumph over any deficiency of education. But the history of such men, as that of John Hunter for example, will show that they have often been painfully conscious of a great want, the possession of which would have saved them a vast amount of labor, and perhaps, at times, mortification. It is also true, as has been alleged, that a large majority of the professors in our medical schools, many of the ablest of them, are not entitled to fellowship in the Academy. Many of them we would be glad to number among our fellows if we could. But it would be hazardous to make exceptions. I have discovered, however, by conversation with some of these gentlemen, and by correspondence with others, that they did *not* enter on their professional career entirely destitute of collegiate training. A considerable proportion passed through one or more of the classes of the college curriculum, but left before obtaining a diploma. Some being over-anxious to commence the study of medicine, and not, at the time, attaching much importance to the possession of a degree, others from ill health or other causes. Many of these gentlemen have hastened to repair their deficiencies, while others not unfrequently offend the ears of better educated men, even of their pupils, by gross grammatical errors. It is nothing to boast of, and not calculated to elevate us in the esteem of the educated public, that a large majority of our medical professors are destitute of collegiate training, however able they may be as teachers in their particular branches of medical science. Owing to the laxity of the examinations in our literary colleges, and the indiscriminate manner in which the degree of A. M. is conferred, it may be urged that it carries no as-

surance of any considerable amount of scholarly attainment or mental training. This must be admitted. Still, it must also be admitted that the degrees of A. B. and A. M. conferred *in course*, can only be obtained, in respectable institutions, after a certain term of varied study, and that they do carry the assurance that their recipients have not only passed through the curriculum of a respectable college, embracing four years of study, but through a *preparatory* course of two or three years, and have, after graduation, studied a profession, or engaged in literary pursuits for two or three years additional, or have submitted to a special examination. That is to say, whether they have retained much actual knowledge of their previous studies, they must have formed, to some extent, habits of study, must have acquired some method, something of the art of mental application, so necessary for entering upon the study of the difficult branches of medical science, and will be able at least to comprehend the nomenclature of their profession; therefore that they are far more desirable candidates, as a class, than those who are not in possession of degrees. We will, of course, be met with the objection that there is too much time wasted, in the ordinary college curriculum, with the classics. It is not necessary, however, that I should enter upon the discussion of this question, even if time permitted, nor that I should attempt a defence of the time-honored system, which has been so successful in the past, but which, like everything human, must change and submit to the modifications suited to the advance of civilization and science. It will be denied, however, I think, by few educated persons that the study of the classics has an importance distinct from mere mental training. Even Tyndall has remarked that "as long as the ancient languages are the means of access to the ancient mind, they must ever be of priceless value to humanity." It has been suggested that if the classics were differently taught, their great value in disciplining the mind would be better appreciated. "That if Latin and Greek were taught in a scientific way, in relation to modern languages, they would become, in being so taught, rather the languages of the living than the dead." There is no doubt that the

very imperfect and uninteresting methods of teaching the classics, devoting attention merely to their correct and generally literal translation, and the grammatical construction of sentences, and paying no regard to the "style and material of the ancient writers and orators," has had much to do with the depreciation into which these studies have lately fallen. The great strides which Physical Science has made and is making must require some change in the preparation which is to fit our youth to cope with its problems; and this change will undoubtedly be made soon enough. The discussion, which is now being so hotly waged between the conservatives in education and the extreme utilitarians, will doubtless eventuate in the adoption of a medium course on the part of the colleges, and, in the meantime, we must accept the curriculum of any reputable college as we find it, only looking to the *duration* of the term of study required for graduation.

Will it be charged that we are going too fast. That we are radical and revolutionary in exacting such a standard? My lamented friend, the late Henry S. Hewitt, in his address before the Alumni Association of the Medical Department of the University of New York twelve years ago, said, in relation to the evils now complained of: "The remedy, so far as our profession is concerned, lies in our own hands. Let us insist that every candidate for admission into a medical school shall present his diploma from an incorporated college of rank equal to Harvard, or Yale, or Columbia, or the University, or submit to an examination, and be rated accordingly, with reference to subsequent degrees." Look at the condition of the profession in Great Britain. They are clamoring there for a higher standard, are complaining there as here, that the social *status* of the profession is being lowered by the admission of uneducated men; yet their preliminary requirements are far higher than ours, and their final examination for the degree far more rigid than ours, and their term of study much longer. We may be referred to the fact that great improvements are proposed, and some instituted in our colleges; that the term of study is being lengthened, the classes, in some instances, graded, frequent examinations instituted, increased laboratory

and clinical work insisted on, that independent boards of examiners have been proposed and perhaps secured. I have no disposition to undervalue the decided improvements which many of the colleges, especially in the West, have recently made, and the disposition to do all in their power, perhaps, to aid the cause of higher medical education, while older and more distinguished institutions, to borrow again the language of a medical editor, "are halting between two opinions, which are born of a desire for dividends on the one hand, and a wish to avoid the disgrace which comes from the propagation of ignorant doctors on the other." Whether these efforts are compelled "by outside pressure rather than from inside growth," as the editor charges, I do not choose to enquire. I accept the fact as a harbinger of what must soon come. But even if these efforts, in the course of the next decade, should eventuate in the greatest amount of improvement which the most sanguine could expect, the condition of the profession in Great Britain, is such as to indicate that no amount of reform short of a radical change in our rules for matriculation, a complete revolution in our ideas of preliminary requirement, and of our *method of establishing its character*, will give us that which we require, suitable material for the manufacture of physicians.

Shall we be told that our association is exclusive, that our rule would turn away numbers of the most worthy young men of the country, who have been unable, from pecuniary or other unavoidable circumstances, to acquire the necessary degrees? This objection might have had some weight twenty or possible ten years ago; certainly not now, when our literary colleges are scattered in profusion, by the unexampled liberality of our State Governments, over every inhabited portion of our domain, where these degrees can be obtained with such facility, and at such trifling expense, when the children of the farmer, the mechanic, and even the laborer, are offered, free of charge, the opportunity of a liberal education. An example just occurs to me to illustrate what the energetic but the impecunious American youth may accomplish. A few years ago, a young man wished to graduate at Cornell University. He was too poor to pay his expenses, light as they are in that excellent

institution. He commenced work therefore as a bricklayer on some of the college buildings. He commenced his studies also; he worked hard and he studied hard. He ceased study for a couple of years in order to lay up a little money to enable him to go on more satisfactorily. He finally surmounted all difficulties as any man of perseverance and pluck will, and completed his course, got his degree; and now, only a few years after, he is becoming one of the noted scientists of the day, and, on the recommendation of several distinguished savants, has been appointed to a high position in one of the scientific departments under the General Government. I assert that any youth who has not the ambition and the energy and the patience thus to spend a few years in necessary preparation, when his State and his country are holding out to him the helping hand, is not fit to enter the sacred precincts of Medical Science, to cope with the emergencies and responsibilities of medical practice. But, even if the case were different, the fact that this is a free country, and that every man, whether he be ignorant, or learned, whether he can even sign his name or not, is entitled to a voice in the choice of his rulers, and in shaping governmental policy, is no argument in favor of liberalism in admission to the professions, especially the medical profession: for, if there is any which should be exclusive, which should, more than another, sedulously guard its doors against unworthy intrusion, it is ours. Whether we exist in a despotism, a monarchy, or a republic, our rules should be the same; our diplomas should signify the same in one case as in another, that its recipient has had all the advantages, all the training, all the ennobling and humanizing influences, which only a liberal education can give; not a training of two or three years, but of a sufficient length of time to meet the requirements of the age, and of the present advanced state of medical science.

Can any one advance a good reason at this epoch of our history, when our common school system throughout the country is the admiration, and the amount of money expended on it, the wonder of European nations,* when

we are outstripping almost every nation in agriculture, in manufactures, in important discoveries in science, and art, in almost everything which marks a great and prosperous nation, why our people should not have the benefit of as well-educated physicians as any country in the world? Why our preliminary training, our term of study should not be as protracted, and our requirements for degrees the same as in France, or Austria, or Germany, or, at least, as in Cuba or Chili. I presume I am reflecting the sentiment of this Academy when I say that I do not believe there is any valid reason; and that if the profession will unite with us, as we hope and expect they eventually will, in insisting upon the higher standard which we propose, the time will soon come when we shall be rid of the superfluous members, who now jostle each other in disgraceful competition; and, above all, of those who have the honorable title of M.D., without the qualifications of head or heart, which would entitle them to it, and who are dragging us down to lower and lower depths of depreciation. This it is, and this only which distinguishes us from the other medical societies of the country, that the guarantee of a liberal education is required for membership, and that we express the opinion in our constitution, that a liberal education is absolutely requisite for entering upon the study of medicine. This gives to our diploma a different significance from that of all other societies, and when it shall have become gener-

common school system, and the vast sums expended on it should have attracted attention and commendation but it would be far more commendable if the investigation, to which it has lately been subjected, had developed the fact that less money had been expended and more benefit derived from it. It has lately been asserted by those who have had the best means of judging, that fully one half of the money appropriated is wasted. Even in Massachusetts such is the fact; and there, one-fifth of the whole amount of the taxes is appropriated to the schools. In fact, to some extent, it is worse than wasted, since the lives and health of the pupils are endangered by the bad ventilation and bad drainage of the school buildings and other violations of the laws of health. Nothing short of a complete revolution in the methods of teaching will help the matter; and this revolution has happily been inaugurated at Quincy, Mass., and the "Quincy System" has been studied on the spot by hundreds of educators, whom interest or curiosity has drawn there. This system is, however, by no means perfect, and has faults which will require correction.

* It is not remarkable that the vast extent of our

ally understood abroad, will entitle its possessor to a position there, and to a recognition by bodies entitled to grant licenses to practise which it would be difficult for him otherwise to acquire. This does not, however, constitute any antagonism between us and our sister societies, state and national; we draw our fellows largely from them, we expect to work with them, and that they will work with us, as soon as they fully understand our aims. We all equally appreciate the great necessity, and are all equally anxious for reform. Because certain prominent members of the profession are excluded from fellowship by an article in the Constitution, do we expect that they will chafe at it, or sneer at us, or endeavor to thwart us in our efforts? I should blush to think that the representative men in such a profession as ours could be so narrow-minded. No! they fully appreciate the vital importance of such an article. This is not mere individual *opinion*. I have conversed and corresponded with these gentlemen. They express a full appreciation of the importance of this movement, though they may differ with us with regard to some of its details. If we persevere, if we remain true to our principles and our Academy, we shall eventually receive their valuable aid. If they are actuated by no more commendable motive than self-interest, many of them have sons who are being thoroughly trained to become what physicians should be, who are spending a large amount of money, and a valuable portion of their life in obtaining just such an education as we are insisting on; and they, least of all, would be likely to oppose an effort designed for the protection of this very class.

I have, perhaps, already overtaxed your patience in endeavoring to do justice to the various topics incident to my subject, and which have seemed to demand consideration. and still have not alluded to some of the most important. These, after a brief notice, must be left for my successors, who will, doubtless, be able to present them more forcibly than I could hope to do.

The degree of A. B., though a *sine qua non* in medical reform, is not a panacea for all our ills. *Clinical teaching* in the hospitals needs thorough revision. Through a want of system, of some authoritative supervision over the lectures, and other causes,

which it may not be wise to mention here, the inestimable benefits of our great hospitals, built and kept up at such an enormous outlay, are enjoyed by comparatively few. In consequence of this want of system, the practical advantages available to the majority of students in our large cities, with their numerous hospitals, are not so far superior to those of the smaller towns as we have been in the habit of claiming, which latter having fewer clinical facilities, utilize them to a greater extent.

The importance of an independent State Board of Examiners in Medicine has already been incidentally alluded to. Professor Mercer, of Syracuse University (address before the Council 1878) says: "We are prepared to petition the Legislature to appoint a Medical Board of Regents to examine all the candidates from the colleges of the State for the degree of M. D." He also says, with truth, that "the college which shuns or fears an independent examination of its candidates for graduation is to be looked upon with suspicion. The college that could not successfully educate for such an examination ought not to be permitted to educate for any other." Such a law has been in existence in the State of New York for years, but the students are not *compelled* to appear before the board, and it has been, like all other medical laws, a dead letter. If we could devise some plan for the proper constitution of such a board, and to make it compulsory on the colleges to send their students before it, the advantage to medical education would be great. Competent and faithful examiners are undoubtedly hard to find. Outside of the faculties of our colleges, it would probably be impossible to find them. But the plan of *conjoint boards*, which is agitating the medical mind at this time in Great Britain, would probably work well, especially if written examinations were mostly relied on, and if the examination papers should appear before the board by numbers instead of by names.

Another favor the medical profession might successfully ask of the Legislature, that they cease granting charters to any more colleges without the approval of the State Medical Society. The discredit and ridicule which the bogus medical colleges of Philadelphia and Cincinnati, chartered by their respec-

ive States, have brought on the country abroad should be a warning to all Legislatures to ask the counsel of the State Society previous to any future action.

The manner of choosing our professors might be improved with decided advantage to medical education, though it must be admitted that the present plan, faulty as it is, has usually furnished an able corps of teachers. One college has initiated the *concours*, which works so well in France. Without endowment, however, the plan might not apply to all our colleges.

Even if the colleges should require a three years course, and nine months in the year, it would still be impossible to impart to the most industrious student a respectable knowledge of all the branches of medical science. In fact, no mind can grasp the whole range of the science at this day. There are certain branches which must finally be left to a post graduate course, or to special study after graduation. A certain degree of proficiency in them must, of course, be required of the student who is to become a general practitioner, especially if he is to practice in the rural districts or small towns. With all such branches as Ophthalmology, Otology, Microscopy, Analytical Chemistry, Medical Jurisprudence, Insanity, Diseases of the Nervous System, Hygiene and State Medicine, it is simply impossible that the medical student can become thoroughly conversant during the ordinary curriculum, even if greatly enlarged. Nor is it desirable that he should. Certain men, who desire to become specialists or experts, after graduation, will select certain branches, and obtain a special diploma; and they, and they alone, will, it is hoped, in future meet the wants of medical jurisprudence, and that we shall cease to find a *quasi* expert in every block in a city and every street in a village.* The profession probably sustains no greater discredit from any one source than the conflicting opinions of pseudo experts. My friend Prof. Thomson, of the University of the City of New York, in his annual address before the New York Academy of Medicine, graphically portrays the exigencies of

the average practitioner's life in this country, and the great importance to him and the student just graduated, of post graduate lectureships. But these should be really and not merely nominally post graduate; that is, they should be of such a character as to reach the needs of practitioners, and not, as is too often the case, toned down to the comprehension of first and second-course students. It has been demonstrated that such courses, if genuine, will pay,

Intimately connected with the last topic is *endowment*, which is too important to be entirely ignored. It would be easy to enter upon such a mathematical calculation as would demonstrate that, through our gratuitous practice among the poor, and our hygienic labors, with the consequent saving of life, and diminution of disease, with a corresponding saving of expense to the State, the latter could well afford to endow all the medical colleges recipary for the wants of the public, and have a surplus in the treasury. Years ago, when Hygiene and Preventive Medicine were in their infancy, the celebrated New York surgeon and scholar, Alexander H. Stevens, in an address before the State Medical Society,* made this clear by actual figures, and the celebrated Dr. Farr of England has lately done the same. But I concur with my distinguished predecessor, Prof. Hamilton, that the gain to medical education through State endowment, would be a doubtful one, and that any union of Medicine and State is to be as much deprecated by us as that of Church and State. We must look to other quarters for our endowments, and we will not look in vain, if we show ourselves worthy of them, and if we use the influence, by no means a trifling one, which we individually possess, according to our worth. What cheaper or better method could a man desire for handing his name down to posterity than by founding such lectureships as the Lettsoman, the Lumleian, the Croonian, and the Goulstonian? Annually, the reading public is reminded of the professional patriotism and foresight of the distinguished founders of those lectures. Their names are annually rendered as fresh in our minds as they were

*Michigan, which has inaugurated many medical reforms, has initiated a method for the instruction and licensing of sanitary experts, by means of the State Board of Health.

*"A Plea of Humanity in behalf of Medical Education."

in the minds of the public hundreds of years ago, when they lived. What more noble or fitting monument to commemorate a life well spent, and the lofty sentiments of their founders, than these world-renowned lectureships, reflecting, each year, the foremost advances of our ever advancing science? Through the lips of their eminent successors, year after year, and century after century, they still speak to us words of wisdom, and we still hear the tones of their voices, encouraging us to emulate their example and to persevere in the path of usefulness, of rectitude and honor. Within the past year or two their example is beginning to bear fruit here in the foundation of lectureships in our large cities. The cost of a monument of bronze or marble to mark the resting place of some wealthy individual, such as we now and then see standing in some quiet nook in some secluded

cemetery, hidden from and forgotten by the busy world, would serve to found two, perhaps three of those invaluable lectures for the higher education of physicians, which would place the names of their founders in such a position, for all time, that "he who runs may read," *Monumentum are perennium*. It should be one of the aims of this Academy to use its influence to compass the foundation of such lectureships as we need to supplement the teaching of our schools, and to help the busy practitioner, who desires to make up for deficiencies of which he only becomes conscious after he has been a few years in practice. They might be delivered, each year, in the city where the Academy holds its session, thus affording the fellows an opportunity to profit by them, and serving as an additional inducement to regular attendance on the meetings.

NOTE.—It was my intention to have mentioned, in the body of my address, or in a footnote, when referring to the "bogus" diplomas of Philadelphia and other cities, the praiseworthy efforts of the "*Philadelphia Record*," which, although having no special interest in the Medical Profession, but simply for the honor of its city and country, undertook to do, and did do, single-handed, that which neither the Legislature, nor the Courts, nor the Medical Profession had made any great effort to accomplish, and, but for which action, Buchanan would now be adding to the list of the 11,000 diplomas which he had previously scattered all over the world, to the ridicule, and disgrace of our country at home and abroad.